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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/975,479

10/11/2001

Yoko Saino

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9757

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01/14/2005

MORGAN & FINNEGAN, L.L.P.

3 WORLD FINANCIAL CENTER

NEW YORK, NY 10281-2101

EXAMINER

KOROBOV, VITALI A

ART UNIT

PAPER NUMBER

2155

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/975,479

Applicant(s)

SAINO ET AL.

Examiner

Vitali Korobov

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

### **DETAILED ACTION**

1. Claims 1-19 are presented for examination.
2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/975479, filed on 10/11/2001.

### ***Papers Received***

3. Response to "NOTICE TO FILE MISSING PARTS" was received on 01/04/2002.

### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Drawings presented for examination, do not depict the following items:

- "rejection means" recited in Claim 5 (page 19, line 25):
- "service object reception means" recited in Claim 6 (page 20, line 2-3);
- "storage medium" recited in Claim 18 (page 24 line 13).

The said items must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The

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figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

6. The specification is objected to because of the following informalities: inconsistent spelling of terms, such as "multi cast" on page 4, line 16, 18, etc., and "multi-casts" on page 8, line 18. Such accepted in the art dictionaries of standard terms as "Microsoft Computer Dictionary", and "The Authoritative Dictionary of IEEE Standards Terms" provide a different spelling for this term.

Appropriate correction is required.

7. The disclosure is further objected to because of the following informalities: typographical errors (i.e. "server", page 5, line 14).

Appropriate correction is required.

8. The disclosure is further objected to because of the following informalities: terminology inconsistent with the drawings. Description of the Preferred Embodiments section refers to "service search request means 111" (page 6, line 8 and page 9, line 10, etc.). However, Fig.1 shows that item 111 is "service register request means".

Appropriate correction is required.

9. The disclosure is further objected to because of the following informalities: terminology inconsistent with the drawings. Description of the Preferred Embodiments section refers to "multi cast notification means 108" (page 12, line 20). However, Fig.1 shows that item 108 is "look-up service search means".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 1-4, 9, 10-13, 18 and 19 are rejected under 35 U.S.C 102(e) as being anticipated by U.S. Patent 6,446,108 by Rosenberg et al. (Rosenberg).

12. With respect to Claim 1, Rosenberg teaches a communication terminal connected to a service provider for providing services and to a look-up service in which service objects defining the services of the service provider are registered, via a network, the communication terminal using the services of the service provider by using the service objects, the communication terminal comprising: look-up service search means for searching the look-up service in the network (Fig. 2, step 6, 7); first acquisition means for acquiring, if said look-up service search means can search the look-up service, a desired service object by checking whether the desired service object is registered in the searched look-up service (Fig. 2, step 8, 9, 10); transmission request notification means for issuing, if said look-up service search means cannot search the look-up service, a transmission request notification to the service provider in the network via the network in order to request the service provider to transmit a service object; and second acquisition means responsive to the transmission request notification from said transmission request notification means for acquiring a service object transmitted from the service provider without involvement of the look-up service (Col. 6, lines 4 – 10).

13. With respect to Claim 2, Rosenberg teaches all the limitations of Claim 1 and further teaches a communication terminal according to claim 1, wherein the service

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provider responds to a multi cast notification and transmits a service object of the service provider to a transmission originating site of the multi cast notification in order to register the service object in the transmission originating site. (Col. 2, 29 – 32; Col. 7, lines 15 – 25; Figure 2, step 2).

14. With respect to Claim 3, Rosenberg teaches all the limitations of Claim 2 and a communication terminal according to claim 2, wherein the transmission request notification by said transmission request notification means is performed by issuing the multicast notification to the network. (Figure 1, step 1).

15. With respect to Claim 4, Rosenberg teaches all the limitations of Claim 2 and further teaches a communication terminal according to claim 2, wherein the look-up service issues the multi cast notification to the network, (Figure 2, step 3) and registers the service object in response to a request from the service provider responding to the multi cast notification (Figure 2, step 2).

16. Claims 9, 18 and 19 are rejected in view of the above rejection of Claim 1. In the computer network art, a computer system product is essentially a computer program product (software), said program residing on a storage medium, and can be loaded into a general purpose computer to convert it into a specific machine that performs the steps of a method to be performed by the loaded program product and/or software. Claim 9 is essentially the same as Claim 1, except that it sets forth the claimed invention as a system rather than an apparatus as recited in Claim 1. Claim 18 is essentially the same as Claim 1, except that it sets forth the claimed invention as a storage medium rather than an apparatus as recited in Claim 1. Claim 19 is essentially

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the same as Claim 1, except that it sets forth the claimed invention as a computer readable program rather than an apparatus as recited in Claim 1. Therefore, Claims 9, 18 and 19 are rejected under the same rationale given to Claim 1 above.

17. Claims 10 - 13 are rejected in view of the above rejection of Claims 1 - 4 as differing from Claims 1 - 4 only in statutory category. Claims 10 - 13 are essentially the same as claims 1 - 4, except that they set forth the invention as a method rather than an apparatus.

***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).



19. Claim 5 – 8 and 14 – 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg in view of U.S. Patent 6,708,171 by Waldo et al. (Waldo). 2001/0051981)

20. With respect to Claim 5, Rosenberg teaches a communication terminal according to claim 3, wherein another client is connected to the network, and responds to the multicast notification to request a transmission site of the multicast notification to search a desired service (Col. 2, lines 23 – 42). Rosenberg fails to explicitly teach said terminal wherein the communication terminal further comprises rejection means for rejecting a service search request from the other client. The applicant states the conditions relevant to Claim 5 arise in the system “erroneously” (Specification, page 9, line 22). It is noted that one of ordinary skills in the art would have known that the error-handling procedures are inherently present in any operable system related to computer network art. Further, Waldo teaches the invocation of error-handling exception handlers to perform selected error recovery operations in cases where an error condition arises with respect to locating an appropriate stub. Stubs taught by Waldo are analogous to service agents as taught by the instant application. (Figure 4 of Waldo). Service items taught by Waldo are analogous to service objects as taught by the instant application. (Compare the definition of a “service object” on p. 7, line 25 – 27 and Figure 4 of Waldo). Therefore, Waldo, broadly interpreted, teaches said communication terminal wherein the communication terminal further comprises rejection means for rejecting a service search request from the other client. (Col. 13, lines 38 – 42). Rosenberg and Waldo are analogous art because they are both related to clients obtaining and using

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services of service providers on a network. Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to modify Rosenberg by employing exception handlers as taught by Waldo in order to perform error recovery operations related to erroneous service search requests by clients. A person of ordinary skills in the art would be motivated to incorporate Waldo in Rosenberg because the incorporation would make the system more efficient by reducing run-time errors, while loading the programs dynamically. (See Waldo, Col. 3, lines 32 – 36).

21. With respect to Claim 6, Rosenberg teaches all the limitations of Claim 1, and further teaches a communication terminal according to claim 1, wherein said second acquisition means includes service object reception means for receiving a service object transmitted from the service provider without involvement of the look-up service (Col. 6, line 4 – 10) and filtering means for acquiring a desired service object (Col. 6, line 14 – 20; Col. 6, lines 47 – 50). Rosenberg fails to explicitly teach filtering means for acquiring a desired service object by selecting from service objects received by said service object reception means. Waldo teaches filtering means for acquiring a desired service object by selecting from service objects received by said service object reception means. (Col. 16, lines 33 – 36). Rosenberg and Waldo are analogous art because they are both related to clients obtaining and using services of service providers on a network. Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to modify Rosenberg by implementing teachings of Waldo. A person of ordinary skills in the art would be

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motivated to incorporate Waldo in Rosenberg in order to provide accessibility of clients to service providers independently from availability of the network look-up service and in order to reduce system inefficiencies. (See Waldo, Col. 3, line 32 – 36).

22. With respect to Claim 7, a combined teaching of Rosenberg and Waldo teach a communication terminal according to claim 6. Rosenberg fails to explicitly teach the further limitations of Claim 7. Waldo teaches further limitations of Claim 7, namely filtering means of Claim 6, wherein said filtering means deletes a service object other than the desired service object, among the service objects received by said service object reception means. (Col 15, lines 38 – 39; Col. 16, lines 33 – 36; Col. 16, lines 48 – 50). Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to further modify Rosenberg by implementing teachings of Waldo. A person of ordinary skills in the art would be motivated to further incorporate Waldo in Rosenberg to provide additional service object filtering and deletion means in order to enable the clients on the network to use network services more effectively and efficiently. (See Waldo, Col. 3, line 32 – 36).

23. With respect to Claim 8, Rosenberg teaches all the limitations of Claim 1. Rosenberg fails to explicitly teach the further limitations of Claim 8. Waldo teaches further limitations of Claim 8, namely the service object, wherein the service object includes an agent object which is program codes used for using each service of the service provider by the communication terminal, and attribute information of the service (Figure 4). Therefore, it would have been obvious to one having ordinary skills in the art at the time the invention was made to further modify Rosenberg by implementing

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teachings of Waldo. A person of ordinary skills in the art would be motivated to further incorporate Waldo in Rosenberg because the incorporation would make the system more efficient by reducing run-time errors, while loading the programs dynamically. (See Waldo, Col. 3, lines 32 – 36).

24. Claims 14 - 17 are rejected in view of the above rejection of Claims 5 - 8 as differing from Claims 5 - 8 only in statutory category. Claims 14 – 17 are essentially the same as Claims 5 – 8, except that they set forth the invention as a method rather than an apparatus.

### ***Conclusion***

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 6,426,945 by Sengodan "Method and Apparatus for Providing Resource Discovery Using Multicast Scope", July 30, 2002;

U.S. Patent No. 6,185,611 by Waldo et al., "Dynamic Lookup Service in a Distributed System", February 6, 2001;

U.S. Patent No. 6,393,497 by Arnold et al., "Downloadable Smart Proxies for Performing Processing Associated with a Remote Procedure Call in a Distributed System", May 21, 2002;

U.S. Patent No. 6,560,656 by O'Sullivan et al., "Apparatus and Method for Providing Downloadable Code for Use in Communicating with a Device in a Distributed System;

U.S. Patent No. 6,604,140 by Beck et al., "Service Framework for Computing Devices", August 5, 2003.

"A Generic Multicast Transport Service to Support Disconnected Operation", by Silvano Maffeis<sup>a</sup>, Walter Bischofberger<sup>b</sup> and Kai-Uwe Mätzel<sup>b</sup>, <sup>a</sup>Department of Computer Science, Cornell University, Ithaca, NY 14853-7501, USA, <sup>b</sup>UBILAB, Union Bank of Switzerland, Switzerland. Published 1996.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vitali Korobov whose telephone number is 571-272-7506. The examiner can normally be reached on Mon-Friday 8a.m. - 4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vitali Korobov  
Examiner  
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VAK

12/30/04



**HOSAIN ALAM**  
**SUPERVISORY PATENT EXAMINER**